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## WHAT IS CLAIMED IS:

1. A furnace-type atomic absorption spectrophotometer comprising: a tube for heating a sample therein;

monitoring means for monitoring temperature of said tube and outputting a monitored value indicative of the monitored temperature;

heating control means for controlling heating current for heating said tube such that said monitored value will approach a specified target temperature value; and

parameter setting means for setting parameters which determine a response characteristic of said heating control means when said tube is heated by said heating control means.

- 2. The spectrophotometer of claim 1 wherein said heating control means includes a calculator for obtaining a quantity of a specified operation of said heating control means by a PID control calculation on difference between said monitored value and said target temperature value and said parameter setting means serves to set at least one of parameters for said PID control calculation.
- 3. The spectrophotometer of claim 1 wherein said parameter setting means includes an input device for allowing a user to input therethrough said parameters.
- 4. The spectrophotometer of claim 1 wherein said parameter setting means include an input device for allowing a user to input therethrough a condition corresponding to said parameters.

5. The spectrophotometer of claim 2 wherein said parameter setting means include an input device for allowing a user to input therethrough said parameters.

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- 6. The spectrophotometer of claim 2 wherein said parameter setting means include an input device for allowing a user to input therethrough a condition corresponding to said parameters.
- The spectrophotometer of claim 2 wherein said PID control is carried out with a parallel parameter, an integration parameter and a differential parameter.
  - 8. The spectrophotometer of claim 1 wherein said monitoring means monitors values indicative of the temperature of said tube.
  - 9. The spectrophotometer of claim 1 wherein said parameter setting means includes a memory which stores sets of parameters corresponding to different measurement conditions.
  - 10. The spectrophotometer of claim 3 wherein said parameter setting means includes a memory which stores sets of parameters corresponding to different measurement conditions and said input device allows a condition to be inputted therethrough, said parameter setting means selecting one of said sets of parameters according to said condition inputted through said input device.
  - 11. The spectrophotometer of claim 2 wherein said heating control means controls said heating current by a phase control method and said quantity of a specified operation is a firing angle.